DETAILED ACTION

1. This office action is in reply to an amendment after non-final rejection filed on August 24, 2010 and the telephone interview conducted on August 4, 2010. Claims 1-20, 22 and 29 were canceled previously and Claims 21, 23-28 and 30-44 are pending. Claims 21, 43 and 44 are independent.

2. Amendment made to independent claims 21, 43 and 44 overcomes the 101 rejection set forth in the previous office action. Thus the 101 rejection is withdrawn.

Response to Arguments

3. Applicant's remark/arguments filed on August 24, 2010 regarding independent claims 21 and 44 have been fully considered but are not persuasive however the argument presented on August 24, 2010 regarding independent claim 43 (as discussed and agreed on the telephone interview conducted on August 24, 2010) is found to persuasive and is allowed.

Applicant's argued that the following amended limitation recited in independent claims 21 and the similar limitation recited on independent claim 44 is not disclosed by the reference on the record, "acquiring numerical data includes analyzing **both a reflected portion and a portion transmitted through the object** using at least one of a spectroscopic analysis..."

Applicant's representative on page 11 and page 12 (the first two lines) of the submitted remark wrote the following in support of his argument.

*"The examiner indicated that independent claims 21 and 44 would also be allowable if amended to include limitations regarding specific wavelengths similar to the limitations of claim 43. However, the examiner also indicated that the limitation "**transmitted through the object**" found in original claim 44 and in amended claim 21 appeared to distinguish over the references and **that arguments regarding this limitation would be considered when a written response was filed**.;... agreement was not reached with regard to the remaining claims"*

Examiner disagrees with this argument.

A close review of the reference/s on the record revealed that this limitation argued by the applicant's representative such as "acquiring numerical data includes "analyzing **both a reflected portion and a portion transmitted through the object ..."** is actually disclosed or taught by the reference on the record.

Examiner would like to point out that Einighammer on at least paragraph 0005, 0038 and its abstract discloses the following which meets the above argued limitations.

"...For this purpose, the skin is illuminated, at the irradiation point, with a beam of light that is diffusely **reflected at the surface, in part. The remaining part of the beam of light**

penetrates into the tissue of the skin, and is distributed in this volume by means of multiple scattering, whereby a fraction of this scattered light exits from the skin surface again and thereby makes the skin appear bright" [Paragraph 0005]

Furthermore on at least paragraph 0038 the following has been disclosed.

"FIG. 1 shows, in simplified form, how the scattered light 7 is formed, if a light beam 2 having a specific intensity and wavelength is radiated in at an irradiation point 1. **Part of this light beam 2 is diffusely reflected from the surface of the skin 5, thereby forming the light bundle 6. The other part of the light beam 2 passes through the surface 4 into the tissue of the skin 5, and distributes there by means of multiple scattering.** A fraction of this light scattered in the skin 5 exits back out from the skin surface 4 as visible scattered light 7, whereby the intensity of this scattered light 7 depends, in characteristic manner, in accordance with the scatter function S, on the distance of the exit point from the irradiation point 1 as well as on the wavelength of the light radiated in..." [Paragraph 0038]

Examiner Note: The office also cited at least two other references at the end of this office action to indicate that the above feature is

a common feature in the science of Spectroscopy. Spectroscopy which is analysis of the interaction between electromagnetic radiation and matter; different types of radiation interact in characteristic ways with different samples of matter; the interaction is often unique and serves as a diagnostic "fingerprint" for the presence of a particular material in a sample. Furthermore Spectroscopy deals with a sensitive quantitative technique to determine trace concentrations of substances. In both cases acquiring numerical data by analyzing "both a reflected portion and/or a portion transmitted portion through the object is known. [Please see the additional references cited at the end of this office action].

In view of the above understanding, the office maintained the previous rejection set forth in the previous office action for both independent claims 21 and 44. However independent claim 43 is allowed as it is agreed on the telephone interview conducted on August 24, 2010)

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been

obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. **Claims 21, 23-28, 31-42 and 44** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Annoff Marius** (hereinafter refereed as **Marius**) (European patent No. DE10123561) (Published on October 18, 2001) (Published on October 18, 2001; submitted with IDS) (See reference U, for the equivalent computer translated English version) in view of **Bolle et al** (hereinafter refereed as **Bolle**) (U.S. Publication No. 2004/0042642) (filed on September 3, 2003) (Continuation of application No. 09/537,077 filed on March 28, 2000) further in view of Einighammer et al (hereinafter referred as **Einighammer**) (International Application WO 02/101668 published on December 19, 2002) which is found to be directly corresponds to the US Patent Publication No. 2006/0056661 A1)

Note: **USPTO translation office, has reviewed and confirmed that there is no distinction what so ever between Application 2006/00566661 and its corresponding international application, WO 02/101668. Therefore citation is made from the corresponding US Publication.)**

6. **As per independent claim 21 and dependent claim 23-26, 42 Marius discloses a method for recognition of biometric data** *[See abstract, "biometric characteristics of fingertips"]:* **comprising**

- **illuminating an object** *[figure 1a, ref. Num "1"/finger]* **using a light source** *[Figure 1a, ref. Num "4" and figure 1d, ref. Num "4 & 8"]*;

- **Simultaneously acquiring a plurality of images of the object from at least two different imaging directions** *[Figure 1a, ref. Num "2" and "3"; see abstract, "fingertip can be analyzed from different perspectives..", see also claim 4, "Furthermore on claim 4 the following has been disclosed* "method for person identification according claim 1, characterized in that a system existing from **two or more cameras the finger crest simultaneous from various perspective takes up,** whereby the cameras can exhibit the additional embodiment of the claims 2 and 3".]

  using optical detector device *[figure 1a, optical scanners use optics to gather finger images. The optics are part of the camera system that captures reflected light from light source, normally through prism. To get an optical fingerprint image, the device will have: platen: used for presenting the finger; Prism: used for reflecting the lighted image to the camera; light source: used to illuminate the fingerprint. This is normally a grid of light-emitting diodes (LEDs); And camera used to capture the finger images. All these features are included in this reference see at least figures 1a and 1b);*

- **Acquiring numerical data for each of at least two of the plurality of images using digital image processing ; calculating**

a three-dimensional model of the object from the numerical data of each of the at least two images *["title, "Person identification with 3-dimensional finger group analysis involves analyzing fingerprint, fingertip shape from different perspectives to prevent deception using planar images"]*;

- **Comparing the three-dimensional model to a reference model, wherein the reference model is acquired from a plurality of other images; and recognizing the object as a correct object when the numerical data from the each of the at least two images simultaneously correspond with data from the reference model within a predetermined tolerance** *[See title and on page 2, paragraph 6, the following has been disclosed. "the present method can be used in all areas of life in which a person identification of emergencies is helpful or furthermore and can replace conventional method for the identification or verification of persons. And at end of this paragraph the following has been disclosed, the biometric method introduced here can be used for Entrance control systems to doors or buildings, computer access authorization or system to the authenticating …" And all these access control systems mentioned in the above paragraphs, includes comparison with reference model with a predetermined tolerance to identify and recognize/authenticate and authorized the subject/object/person for a particular purposes]*

Marius does not explicitly teach the particular features that the biometric data includes at least one characteristic of one of fingers and face of a person

However, in the same field of endeavor, **Bolle on paragraph 0055, lines 5-17 discloses the following which meets the above feature.**

"The user 410 offers a traditional biometric 420 for authentication or identification purposes. Such a biometrics ***could be a fingerprint, iris or face****. However, rather than holding the biometrics still, as in the case of fingerprints or faces, or keeping the eyes open, as in case of iris recognition, the user performs some specific action 430, a(t) with the biometrics. This action is performed over time 432, from time 0 (434) to some time T (436). Hence, the action a(t) is some one-dimensional function of time 430 and acts upon the traditional biometric 420. Note that this biometric is the actual biometric of user 410 and not a biometrics signal (i.e., in the case of fingerprints,* ***it is the three-dimensional finger with the print on it)****."*

It would have been obvious to one having ordinary skill in the art, at the time the invention was made, to add the features of biometric data including at least one characteristic face of a person as per teachings **Bolle** into the method as taught by **Marius**, for the purpose of providing a backward compatible biometrics methods such as faces for authentications is backward

compatible with fingerprint databases. [**See Bolle** for instance paragraph 0018]

However, the combination of Marius and Bolle does not explicitly teach the particular features such as the illuminating of the object includes directing an illumination path coming laterally from the light source onto the object and wherein the acquiring of numerical data includes analyzing both a reflected portion and a portion transmitted through the object using at least one of a spectroscopic analysis and a scattered-light-spectroscopic analysis.

However, in the same field of endeavor, **Einighammer at least on paragraph 0005, 0038 and the abstract discloses the above feature. See also figure 1-3 and 7; paragraph 0004, 0008, 0011-0012.**

"...For this purpose, the skin is illuminated, at the irradiation point, with a beam of light that is diffusely **reflected at the surface, in part. The remaining part of the beam of light penetrates into the tissue of the skin,** and is distributed in this volume by means of multiple scattering, whereby a fraction of this **scattered light** exits from the skin surface again and thereby makes the skin appear bright" [Paragraph 0005]

"FIG. 1 shows, in simplified form, how the scattered light 7 is formed, if a light beam 2 having a specific intensity and

wavelength is radiated in at an irradiation point 1. **Part of this light beam 2 is diffusely reflected from the surface of the skin 5, thereby forming the light bundle 6. The other part of the light beam 2 passes through the surface 4 into the tissue of the skin 5, and distributes there by means of multiple scattering. A fraction of this light scattered** in the skin 5 exits back out from the skin surface 4 as visible scattered light 7, whereby the intensity of this scattered light 7 depends, in characteristic manner, in accordance with the scatter function S, on the distance of the exit point from the irradiation point 1 as well as on the wavelength of the light radiated in..." [Paragraph 0038]

It would have been obvious to one having ordinary skill in the art, at the time the invention was made, to add the features of directing an illumination path coming laterally from the light source onto the object and wherein the acquiring of numerical data includes analyzing both a reflected portion and a portion transmitted through the object using at least one of a spectroscopic analysis and a scattered-light-spectroscopic analysis and wherein an intensity of the light backdiffused from the object

is measured at the at least two points and compared to a reference value as per teachings of **Einighammer** into the method taught by the combination of **Marius and Bolle**, for the purpose of enhancing the overall security of the system in which the security of biometric method which is used for checking access authorization, can be improved to prevent attempts for deception. [See Einighammer on paragraph 0003]

7. **As per dependent claim 27 the combination of Marius, Bolle and Einighammer discloses a method as applied to claims above. Furthermore Bolle discloses the method wherein the object is a face, wherein the plurality of images includes a front image and a lateral image, and wherein an ear is at least partially visible in the lateral image.** *(On paragraph 0055, lines 5-17, Bolle discloses the following which meets the above feature."The user 410 offers a traditional biometric 420 for authentication or identification purposes. Such a biometrics could be a fingerprint, iris or face. However, rather than holding the biometrics still, as in the case of fingerprints or faces, or keeping the eyes open, as in case of iris recognition, the user performs some specific action 430, a(t) with the biometrics. This action is performed over time 432, from time 0 (434) to some time T (436). Hence, the action a(t) is some one-dimensional function of time 430 and acts upon the traditional biometric 420. Note that this biometric is the actual biometric of user 410 and not a biometrics signal (i.e., in the*

case of fingerprints, it is the three-dimensional finger with the print on it).”

8. **As per dependent claim 28 the combination of Marius, Bolle and Einighammer discloses a method as applied to claims above. Furthermore Einighammer discloses the method wherein the illuminating of the object includes projecting one of a light slit and a light raster onto the object so as to form a contour on a spatial surface of the object, wherein at least one of the plurality of images is acquired using light of a first wavelength and at least one other of the plurality of images is acquired using light of a second wavelength different from the first wavelength used, and wherein a characterizing of the contour of a partial area of the object is used as an additional parameter for recognizing a concordance of the object with the reference model. (Paragraph 0007) *(for instance on paragraph 0007, the following has been disclosed.* “*In order to improve the measurement result, it is furthermore provided, within the scope of the invention, that several limited spectrum ranges are used for illuminating the irradiation point. It is advantageous, in this connection, if light from the spectrum ranges around* ***600 nm and around 800 nm*** *is used for illuminating the irradiation point, since a great absorption jump in the hemoglobin as well as an absorption drop in the skin pigment melanin can be detected* ***between these wavelengths****, and furthermore, the varying oxygen*

saturation of the skin does not have any influence on the measurement." Furthermore on paragraph 0014-0015, ***Einighammer*** *further discloses the following which meets the above limitation. "To determine the scatter function, it is advantageous if several light sources are arranged in the illumination ring, which emit light at different wavelengths. In this connection, it is advantageous if the number of light sources is correlated with a wavelength having the scatter and absorption capacity (scatter function) of the skin at this wavelength, so that light having a wavelength the scatter function of which leads to a greater attenuation of the intensity at the given distance, is irradiated in at the irradiation point, by way of the illumination ring having an averaged irradiation intensity, in order to thereby obtain a sufficient measurement signal, which is comparable with the measurement signals of other wavelengths, with regard to intensity."[paragraph 0014] "Two illumination rings arranged concentric to one another are provided, which* ***emit light of different wavelengths****." [Paragraph 0015])*

9. **As per Independent claims 44, independent claims 44 is rejected for the same reasons as that of the independent claims 21 and dependent claims 28.**

10. **As per dependent claim 31-32 the combination of Marius, Bolle and Einighammer discloses a method as applied to claims above. Furthermore Einighammer discloses a method**

wherein the illuminating is performed punctually using additional light sources in at least one of a visible and infrared spectral range two at least two points on the object and wherein an intensity of the light back diffused from the object is measured at the at least two points and compared to a reference value. **(figure 1-3 and 7; paragraph 0004, 0008, 0011-0012 and abstract discloses the above feature)**

11. **As per claim 33 the combination of Marius, Bolle and Einighammer discloses a method as applied to claims above. Furthermore Marius** discloses a method for recognition of biometric data as applied to claims above. Furthermore Marius discloses the method wherein the plurality of other images are acquired by skewing the object stepwise around an axis running through the object and wherein at least two of the plurality of other images are saved in several discrete situations respectively and are joined together to at least one three-dimensional model reference model. [*"title, "Person identification with 3-dimensional finger group analysis involves analyzing fingerprint, fingertip shape from different perspectives to prevent deception using planar images"*]

12. **As per dependent claim 34 the combination of Marius, Bolle and Einighammer discloses a method as applied to claims**

above. Furthermore Marius discloses a method wherein a plurality of light source *[figure 1d, ref. Num "4 & 8"]* are switched in a pulse-coded manner and, synchronously, an analysis of the signal is performed using an image receiver arrar. (figure 1a-1d; 2a-2b and figure 3)

13. **As per dependent claims 35-39 the combination of Marius, Bolle and Einighammer discloses an apparatus as applied to claims above. Furthermore Marius** discloses an apparatus comprising: at least one illumination device configured to emit at least one of a visible and an infrared light *[Figure 1c, ref. Num "4"]*; and at least two light detectors configured to acquire independent images *[Figure 1c, ref. Num "2" & "3"; see also figure 1d; figure 2a, 2b and figure 3]*.

14. **As per claim dependent claim 40 the combination of Marius, Bolle and Einighammer discloses an apparatus as applied to claims above. Furthermore Marius** discloses the apparatus wherein the plurality of light detectors are part of an electronic camera and wherein several images are acquired by the camera from different directions and are merged using beam-combining optical elements. *[figure 1c-1d; figure 2a-2b; figure 3]*

15. **As per claim 41 the combination of Marius, Bolle and Einighammer discloses an apparatus as applied to claims above. Furthermore Marius** discloses the apparatus wherein the

plurality of light wherein for punctual illumination, the at least two light sources [Figure 1d, ref. Num "4" and "8"] are disposed as an independent module[Figure 1d].

Allowable Subject Matter

16. Dependent Claim 30 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

17. **Independent claim 43** is allowed.

18. With respect to the **independent claim 43,** the applicant's representative argument regarding the limitation recited in claim 43 is found to be persuasive and this is agreed in the telephone interview held on August 4, 2010.

19. **As per independent claim 43 Marius, the primary reference on the record, discloses a method for recognition of biometric data** *[See abstract, "biometric characteristics of fingertips"]:* **comprising**

- **illuminating an object** *[figure 1a ref. Num "1"/finger]* **using a light source** *[Figure 1a ref. Num "4" and figure 1d, ref. Num "4 & 8"]*;
- **Acquiring a plurality of images of the object from at least two different imaging directions** *[Figure 1a ref. Num "2"*

and "3"; see abstract, "fingertip can be analyzed from different perspectives.." Furthermore on claim 4 the following has been disclosed "method for person identification according claim 1, characterized in that a system existing from **two or more cameras the finger crest simultaneous from various perspective takes up,** whereby the cameras can exhibit the additional embodiment of the claims 2 and 3".]

using optical scanning *[figure 1a, optical scanners use optics to gather finger images. The optics are part of the camera system that captures reflected light from light source, normally through prism. To get an optical fingerprint image, the device will have: platen: used for presenting the finger; Prism: used for reflecting the lighted image to the camera; light source: used to illuminate the fingerprint. This is normally a grid of light-emitting diodes (LEDs); And camera used to capture the finger images. All these features are included in this reference see at least figures 1a and 1b);*

- **Acquiring numerical data for each of at least two of the plurality of images using digital image processing** *["title, "Person identification with 3-dimensional finger group analysis involves analyzing fingerprint, fingertip shape from different perspectives to prevent deception using planar images"*]**;**

- **Comparing the three-dimensional model to a reference model, wherein the reference model is acquired from a plurality of other images; and recognizing the object as a**

correct object when the numerical data from the each of the at least two images simultaneously correspond with data from the reference model within a predetermined tolerance *[See title and on page 2, paragraph 6, the following has been disclosed. "the present method can be used in all areas of life in which a person identification of emergencies is helpful or furthermore and can replace conventional method for the identification or verification of persons. And at end of this paragraph the following has been disclosed, the biometric method introduced here can be used for Entrance control systems to doors or buildings, computer access authorization or system to the authenticating ..." And all these access control systems mentioned in the above paragraphs, includes comparison with reference model with a predetermined tolerance to identify and recognize/authenticate and authorized the subject/object/person for a particular purposes]*

Marius does not explicitly teach the particular features such as the illuminating of the object includes directing an illumination path coming laterally from the light source onto the object and wherein the acquiring of numerical data includes analyzing both a reflected portion and a portion transmitted through the object using at least one of a spectroscopic analysis and a scattered-light-spectroscopic analysis.

However, in the same field of endeavor, **Einighammer at least on paragraph 0005, 0038 and the abstract discloses the above**

Feature. See also figure 1-3 and 7; paragraph 0004, 0008, 0011-0012.

"...For this purpose, the skin is illuminated, at the irradiation point, with a beam of light that is diffusely **reflected at the surface, in part. The remaining part of the beam of light penetrates into the tissue of the skin,** and is distributed in this volume by means of multiple scattering, whereby a fraction of this scattered light exits from the skin surface again and thereby makes the skin appear bright" [Paragraph 0005]

"FIG. 1 shows, in simplified form, how the scattered light 7 is formed, if a light beam 2 having a specific intensity and wavelength is radiated in at an irradiation point 1. **Part of this light beam 2 is diffusely reflected from the surface of the skin 5, thereby forming the light bundle 6. The other part of the light beam 2 passes through the surface 4 into the tissue of the skin 5, and distributes there by means of multiple scattering.** A fraction of this light scattered in the skin 5 exits back out from the skin surface 4 as visible scattered light 7, whereby the intensity of this scattered light 7 depends, in characteristic manner, in accordance with the scatter function S, on the distance of the exit point from the irradiation point 1 as well as on the wavelength of the light radiated in..." [Paragraph 0038]

However a close review of the references on the record revealed that **Einighammer** on paragraph 0007 disclosed only ranges of wavelengths which are close to the limitation recited in the claims **but different from the ranges specified in the claims.**

For instance on paragraph 0007,* Einighammer, *discloses the following. *"In order to improve the measurement result, it is furthermore provided, within the scope of the invention, that several limited spectrum ranges are used for illuminating the irradiation point. It is advantageous, in this connection, if light from the spectrum ranges around* ***600 nm and around 800 nm*** *is used for illuminating the irradiation point, since a great absorption jump in the hemoglobin as well as an absorption drop in the skin pigment melanin can be detected* ***between these wavelengths****, and furthermore, the varying oxygen saturation of the skin does not have any influence on the measurement." Furthermore on paragraph 0014-0015,* ***Einighammer*** *further discloses the following which meets the above limitation. "To determine the scatter function, it is advantageous if several light sources are arranged in the illumination ring, which emit light at different wavelengths. In this connection, it is advantageous if the number of light sources is correlated with a wavelength having the scatter and absorption capacity (scatter function) of the skin at this wavelength, so that light having a wavelength the scatter function of which leads to a greater attenuation of the intensity at the given distance,*

is irradiated in at the irradiation point, by way of the illumination ring having an averaged irradiation intensity, in order to thereby obtain a sufficient measurement signal, which is comparable with the measurement signals of other wavelengths, with regard to intensity."[paragraph 0014] "Two illumination rings arranged concentric to one another are provided, which ***emit light of different wavelengths****." [paragraph 0015])*

However the combination of the above references does not disclose the particular wavelengths [**first wavelength which is 678nm and a second wavelength ranging from 808nm to 835nm**] recited in the independent claim 43 and dependent claim 30. Specifically the prior art on the record does not disclose the following limitation recited in the claim, "wherein **a first wavelength is 678 nm and a second wavelength ranges from 808 nm to 835 nm,** the first wavelength representing light to acquire at least one of the plurality of images and the second wavelength representing light to acquire at least one other of the plurality of images."

Conclusion

20 The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. U.S. Publication No. 2004/0130720 A1 to Maeda et al on paragraph 0020 discloses how, a handy type interior quality inspection instrument is provided which comprises a detection head having **a light-emitting unit for projecting light to an inspection object and a light-receiving unit for receiving light diffuse-reflected and transmitted from interior of the inspection object,** a **spectroscope** for receiving the...

b. U.S. Patent No. 4,505,583 to Knomi on column 3, lines 15-35 discloses the following. "According to an aspect of the invention, there is provided a spectroscopic analyzer system which comprises a light source having a predetermined range of wavelengths, **spectroscopic** means including a plurality of sets of interference filters for two-wavelength photometry and adapted to be operated for producing sequentially on a time series base a plurality of light rays of different wavelengths from the light source, **a first light conductor for transmitting sequentially the plurality of light rays of different wavelengths to an object under analysis, a second light conductor for sequentially receiving the plurality of modulated light rays reflected from or transmitted through the object** and transmitting the modulated light rays to..."

21. **ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samson B Lemma whose telephone number is 571-272-3806. The examiner can normally be reached on Monday-Friday (8:00 am---4: 30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, BARRON JR GILBERTO can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Samson B Lemma/

Examiner, Art Unit 2432

/Benjamin E Lanier/

Primary Examiner, Art Unit 2432